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ABSTRACT

Project COULD (Career Orientation Utilizing Language Development) was developed as a means of building skills, knowledges, and attitudes on elementary children's previously acquired backgrounds. Children learn to speak the grammar and vocabulary characteristic of the language heard most frequently at home and in the immediate environment. A series of units of instruction were developed from the concepts and vocabulary of the industries indigenous to Coos County (Oregon). Each unit of the instructional guide is designed to promote vocational awareness, exploration, and language development. Intended for sixth grade use, the four-week unit on marketing fish focuses on available occupations, vocabulary, the marketing process, and environmental and economic influences. It is divided into eight sections: (1) a summary; (2) a unit outline; (3) project goals; (4) unit performance objectives; (5) vocabulary; (6) suggested learning activities (games, puzzles, and evaluation and followup activities); (7) lists of resource persons and materials (audiovisual and print media) and outlines for use by resource person (suggestions, discussion topics, and related vocabulary); and (8) background information (suggested teacher reading; job and process flow charts for wholesale marketing, retail fish marketing, and fish canning; and job descriptions for 13 related occupations). (Author/BP)

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CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

ED120496

PROJECT COULD

AN ESEA, TITLE III PROJECT SERVING COOS COUNTY, OREGON

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F #4
MARKETING FISH
GRADE 6

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PROJECT COULD

CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

A PACE PROJECT

Elementary and Secondary Education Act of 1965

Project COULD was developed as a means of building skills, knowledges, and attitudes upon elementary children's previously acquired backgrounds. Children learn to speak the grammar and vocabulary characteristic of the language heard most frequently at home and in the immediate environment.

A series of units of instruction were developed from the concepts and vocabulary of the industries indigenous to Coos County. The intention was to promote vocational awareness, exploration, and language development for the students in grades 3 to 8.

The information in this unit was prepared for use at the sixth grade level for an approximate period of four weeks.

Materials prepared by Project COULD are available from the IMC of Coos County Intermediate Education District, 2405 Colorado Street, North Bend, Oregon 97459.

SCHEDULE OF UNITS

Grade Level	Fishing
Grade 3 Unit F #1	Harvesting Fish
Grade 4 Unit F #2	Harvesting Shellfish
Grade 5 Unit F #3	Seafood Processing
Grade 6 Unit F #4	Marketing Fish
Grade 7 Unit F #5	Fishing Ecology
Grade 8 Unit F #6	Coos County Careers in Fishing

SUMMARY

This instructional guide is divided into eight sections. Each section is tabulated for easier use and quick reference.

Summary:

The intentions and reasoning for this program have been stated. For effective results, it is suggested that the teacher become totally familiar with the curriculum guide before beginning.

Outline:

This section gives an overall view of all of the sequenced units. Details of the information to be covered in this unit are specifically outlined.

Goals:

Objectives:

Activities:

These three sections are sequentially integrated to clearly define what activities are suggested for a particular objective and a particular goal. Each goal is numbered to correlate directly with objectives, activities and resources.

Vocabulary:

All terminology found in the unit, including particular occupations, is included in this section. Each term is defined. These definitions are intended for teacher use only.

Resources:

Locally produced material, Coos County resource people, books, pamphlets and commercially prepared media are listed with reference made to activity correlation.

Background:

This section contains additional material for teacher use.

MARKETING
UNIT F #4 OVERVIEW

The following outline represents the scope of the entire set of units (grades 3-8) for the category of FISHING. Only the outline for this unit is in its completed form.

SUGGESTED TIME: FOUR WEEKS
- Marketing occupations: 7 days
- Marketing vocabulary 9 days
- Marketing processes: 6 days
- Environmental influences: 1 day
- Economic influences: 4 days

(UNIT F #1) HARVESTING FISH

(UNIT F #2) HARVESTING SHELLFISH

(UNIT F #3) SEAFOOD PROCESSING

(UNIT F #4) MARKETING

A. Occupations available in marketing seafood on a full or part time basis
   1. Bookkeeper
   2. Canner
   3. Cannery laborer
   4. Cooker
   5. Dock worker
   6. Fillet manager
   7. Fish cutter
   8. Fishery laborer
   9. Manager-assistant manager
   10. Packer
   11. Clerk (sales)
   12. Truck driver
   13. Wholesale-retail market owner

B. Marketing Vocabulary
   (see vocabulary)

C. Marketing Process
   1. Wholesale
   2. Retail
   3. Cannery

D. Environmental influences of the marketing of seafood.

E. Economic influences of the marketing of seafood in Coos County

(UNIT F #5) ECOLOGY

(UNIT F #6) COOS COUNTY CAREERS IN FISHING

OUTLINE

GOALS

1. To make the students aware of the different types of seafood marketing in Coos Bay.

2. To make the students aware that workers in seafood marketing use a unique set of terms to facilitate communication.

3. To make the students aware that seafood marketing in Coos County offers various opportunities for employment on a seasonal and full time basis.

4. To make the students aware of the environmental factors which influence the seafood marketing industry in Coos County.

5. To make the students aware that marketing of seafood products provides money needed by the fishing industry to continue business and plays an integral part in the total economy of Coos County.

The intention of Project COULD units is to utilize the language arts areas of reading, writing, listening, and speaking, as the vehicles to promote vocational awareness and exploration. It is not to dictate language arts curriculum, but to suggest that the vocational areas under consideration do have unique languages and concepts.

It is assumed that the language development aspect of the activities will be commensurate with the on-going language arts programs of the students participating in the various units prepared by COULD.

BEHAVIORAL OBJECTIVES

1. Given the choice of the wholesale or retail seafood markets in Coos County, the learners will: Participate in a panel discussion listing the similarities and differences in the two processes.

SIMILARITIES	DIFFERENCES
-Both sell on retail and wholesale levels	-Wholesale market sells in larger quantities
-Both must transport some of their product to the consumer	-Wholesale market transports their own trucks and by common carrier.
-Both markets must buy stock fish	-Wholesale markets sell to retail markets whereas the retailer sells to the ultimate consumer
-Both markets must make a profit	-Wholesale markets sell through a fish broker whereas retail markets sell through a clerk or route man
-Both markets use a type of salesman to sell their products	-The retail market may sell other goods besides seafood products
-Both markets use invoices	

2. Given the vocabulary and key occupations as listed in the VOCABULARY section of this unit, the learners will participate in the game Arrangement. Each student will participate as a holder and as an arranger.

3. Given their choice of any three key occupations, the learners will write a job description for each omitting the title, show it to the class and allow them to guess the occupation titles. The descriptions should include the following:
   a. The job performed by the worker
   b. Special clothing worn on the job
   c. Equipment used
   d. Whether the job is full or part time.

4. The learners will list at least three of the four environmental factors listed below which influence the seafood processing industry in Coos County and relate what effect each has on the seafood market:
   a. Foul weather can prevent the fishermen from catching any fish to sell fresh to the market.
   b. Different fish are caught during different seasons. These fish must be canned or frozen to be sold later when none of that species is being caught.
   c. The all weather bar allows fishing all year round.
   d. Industrial pollution may decrease the number of fish in the ocean.

5. Given the problematical situation of the economics involved in determining stock prices, the learners will determine the wages they can afford to pay their workers, their overhead costs and how much they must charge to make a profit for the business.

THE DEFINITIONS PROVIDED ARE INTENDED FOR TEACHER USE. IT IS SUGGESTED THAT THE STUDENTS FORMULATE THEIR OWN DEFINITIONS THROUGH THE ACTIVITIES OF THIS UNIT.

VOCABULARY AND SPELLING

In this unit, 32 vocabulary words and 13 key occupations are discussed. These words and occupations can and should be used as a part of the spelling program in the classroom. You as the teacher, are the best judge as to how this should be done in your classroom. No matter how you approach the matter, remember that it is just as important to know how to spell the word as it is to know how to use it correctly in speaking.

MASTER VOCABULARY LIST

A permanent listing of all current vocabulary words should be available to the students at all times during the study of fishing. Having this list of words and their definitions readily available to the children on charts, the overhead projector, the blackboard or a vocabulary notebook will provide the children with an immediate reference should the need arise. A professional in-depth type of definition will not be nearly as valuable to the children as one that they have written, discussed and put on the master list themselves. If a definition is to be useful, it must be easily understood by the children.

VOCABULARY

BRINE	A solution of salt, sugar and water into which the fish which are to be smoked and canned are placed. The salt taken into the meat helps retard the growth of bacteria while the meat is being smoked, and the salt and sugar help give the meat its distinctive flavor after smoking.
BRINE TANK	The large pot in which the brine solution is placed and the fish are dipped in to take on flavor. It is usually made of stainless steel.
CAN SEALING MACHINE	This is the machine which automatically seals the lid to the can when activated. The larger model places a lid on the can mechanically but the smaller model requires that this be done by hand.
CAN WASHING MACHINE	This machine is composed of a tub in which the disinfectant and water are placed. It has a large wheel made of brushes submerged half way under the solution. The wheel turns and when the can is placed at one end of the machine, it is forced down under the solution by the wheel, scrubbed and pushed out the other side, where it rolls down a small ramp.
CANNERY	A name given to the retail or wholesale market where fresh fish are canned. In Coos County most of the canneries are retail type establishments that perform a customer service to the sport fisherman.
CANNING BOOK	This is the book in which the record of all the canning done at the market is kept. In it are listed the cooker used, the batch number, the date of the cooking and the amount of time the batch was cooked. It also will list the customer's number in custom canning.
COLD ROOM	This is a refrigerated walk-in room into which fish that are to be cooled are placed. The temperature can be set so that it will be below zero degrees or anywhere above.
CUTTING BOARD	A square or rectangular board which is used to cut upon. The board prevents the surface of the table from becoming marred.
DISPLAY CASE	In the retail fish markets this is a glass fronted refrigerated counter into which the fish are placed for display to the customer.
DOLLY	A small platform with wheels. Used to set large or heavy objects on and move them about a given area.
FISH BOX	These are large wooden boxes into which fresh fish are placed to transport them from one place to another. The handles of these boxes are of rope so that they may be easily grasped by machine, hoist, or by hand.

FISH SLICING MACHINE — This is a machine which is used to cut slices or steaks from fresh fish. It is made up of a circular knife blade, motor and sliding tray upon which the fish is placed to be drawn across the blade. The tray can be adjusted so that it will cut different thicknesses of steaks from the fish.

HAND LIFT JACK — A flat four wheeled frame inside which is a hand pumped hydraulic jack. Used to slide under the skips and lift heavy loads in small areas. The handle is pumped, raising the load and then the jack and the load are pulled to the area of the plant where the load is being stored.

HYSTER — Also called a fork lift. This is a small four wheeled vehicle with a hydraulic fork lift on the front. It is used in the fishery to lift heavy boxes, and loads.

INVOICE — This is the shipping and billing form used by most of the markets in the area. It has on it the name of the market, the number of boxes in the order, the type of fish or shellfish ordered, the weight of the order and the amount to be charged to the customer who has ordered the fish. It will sometimes contain the address of the customer.

LOG BOOK — This is the record book which each interstate driver must keep covering each twenty-four hour period in a month. Starting at midnight on the first day of each month, and for every day thereafter, he must keep a record of the time he is loading or unloading the truck, the hours that he drives and the hours that he has off or sleeps between drives.

RECEIPT — A ticket given to the commercial fisherman telling the weight of the fish he brought into the market, the species of fish, the date, his name and commercial fishing license number, and the amount paid for the fish. When the manager makes this ticket out, he will also get a carbon copy of the receipt showing the type of fish purchased, the amount, the price and the date of purchase.

RECORDER — An electric recording thermometer which is connected to the cookers. It is used to record the temperature, and the length of time the cooker is in operation.

RECORD DISC — This is the paper disc which is used in the recorder. Upon this disc are recorded the pressure and length of the actual cooking.

RETAIL SALES — The sale of goods to the ultimate consumer: such as the sale of fish to a local customer who will cook it for her family.

RETORT — This is another name for the large pressure cookers used at the market. They are composed of a large pot with a lid that can be sealed with large screws. When the lid has been attached steam under pressure is introduced into the pot thereby pressure cooking the contents of the pot. The cookers are capable of holding about 500 half pound cans or 300 one pound cans.

SCREEN BOX — This is a fairly good sized box with doors and racks similar to those of the smoke house. It is into this box that the smoked fish from the smoke house are placed to cool from the circulating air.

SHIPPING BOXES — These are cardboard cartons that have been coated with wax to make them waterproof. Ice is placed in the bottom and the fish to be shipped to market is then packed inside. There are small holes in the bottom to allow any water from the melting ice to drain out. Shipping boxes for the crab which will be sold live at the markets are made of wood.

SKIP — Either of two types of wooden platforms, one with legs short enough to raise above the forks on the hyster, and one with an opening into which the hand lift jack can slide. The latter ones are used in loading the trucks because they take up less space between the loads. Loads of smaller boxes are piled on the skip enabling the hyster or the hand lift jack to carry large loads of small boxes.

SMOKED FISH — This is the name given to fish that has been placed in smoke. The smoke adds a distinctive flavor to the meat.

SMOKE HOUSE — The wooden house in which fish are smoked. Usually has a gas fed flame to keep the wood smoldering and wood frame wire screen racks upon which the fish are laid to absorb the flavor of the smoke.

STEAM TABLE — This is a table with shallow dish boards to hold a shallow layer of water. Made of stainless steel, the table is somewhat like the home double boiler. The open cans are placed on (actually in) this table and left to heat. The heat from the steam which rises from the bottom of the table through holes kills the bacteria in the meat which would grow during the pressure cooking process.

STOCK FISH — Refers to any fish which are purchased on the wholesale market for the retail store.

WET LOCKS — A name given to the wax covered cardboard shipping boxes.

WET ROOM — A refrigerated room that is kept at a constant temperature of around 32 or 33° F. It is used as the store room for fresh fish that is boxed and about to be shipped to market.

WHOLESALE SALES — The sale of goods to a middle man who will sell the goods once again to the ultimate consumer.

WINCH — An electrically powered drum or cogged wheel around which chain or rope or cable is wound. Used to lift heavy loads.

KEY OCCUPATIONS

BOOKKEEPER This person is in charge of keeping track of the financial records of the business. She will make out checks to pay bills and workers. Makes out bills to be sent to the different customers, keeps canning records in the cannery, keeps records of the cash that is taken into the store and also any cash that is taken in by the route truck driver.

CANNER This person places the cans in the can sealing machine and activates the machine. When the lid has been sealed to the can, he will place the can in the can washing machine and another can into the can sealer. He will place the cans on the steam table if there is one in the cannery.

COOKER This is the person who sets up the retort in the cannery. He must adjust and maintain the cooker at the proper temperature and make sure that it is operating properly. He unloads and loads the retort and enters the date, cooker number, number of cans, cooking time and batch number in the canning book.

DOCK WORKER The main job of the dock worker in this end of the fishery process is to read the invoice and load the correct number of boxes of fish onto the truck being used to transport the fish to markets. He uses the hyster and a hand lift jack to move the loads and places them into the trucks.

FILLET MANAGER This person is head of the loading and packaging of fresh and frozen fish to be shipped to market. He takes orders by phone from the fish broker and gives directions to the laborers to make sure that the fish is removed from the cold rooms and placed in wet locks to be put in the wet room to await shipping. When the truck comes in, he will supervise the loading of the shipment.

FISH CUTTER This person is responsible for cutting up the fish for smoking or canning at the market. He or she may also use the fish cutting machine to cut off meat to be packed into the cans.

FISHERY LABORER This is a starting position in the fishery. The worker will do any moving of fish from the cold room to the packing area and may ice down the wet locks and packs the fish for shipping. He will move the boxes into the wet room to await delivery and may remove the boxes again when the trucks arrive.

LABORER The beginning worker in the market or cannery does a number of things from cleaning fresh fish that has been brought by the market from the fisherman, to running the smoke house; from icing fish to be placed in the cold room to packing cans of fish into boxes and marking them before placing them into the store room.

MANAGER-ASSISTANT MANAGER	These positions are held by the workers with the most experience in the market. He must know how to do any of the jobs in the market as well as or better than the worker doing the job. He is the boss when the owner is not around.
PACKER	This person places the cans from the retort basket on the table and checks the seals on them. He will stamp the date of the cooking on the can. If there is time, he will place the label of the market on the can. He or she will then place the cans in cartons and take them to the store room to await sale.
SALES CLERK	This person is responsible for meeting the public in the market and selling the fish. She will help the customer with any selection problems they may have and ring up the purchase. She then wraps or packages the purchase and makes change. She may be responsible for cleaning out the display cases and ordering fresh fish from the commercial fishermen. In this case, she will make out the ticket for the purchase, sometimes called a receipt.
TRUCK DRIVER	This person is the driver of the delivery truck for the wholesale and retail market. He drives to the customer and may unload the truck.
WHOLESALE-RETAIL MARKET OWNER	This person is the owner and boss of all those who work at the market. He may do any of the jobs at the market and must know both the selling and buying ends of the business. He probably has the most experience of any of the workers at the store.

RESOURCE PEOPLE LISTED IN THE RESOURCE SECTION OF THIS UNIT SHOULD BE CONTACTED AT LEAST ONE WEEK IN ADVANCE OF THEIR VISIT. THEY SHOULD HAVE AVAILABLE AN OUTLINE OF THE MATERIAL YOU WISH COVERED AND A LIST OF ANY EQUIPMENT YOU WOULD LIKE THEM TO BRING. (IF ONE OF THE CHILDREN'S FATHERS COULD BE USED AS A RESOURCE PERSON, THIS MAY BE BENEFICIAL TO THAT STUDENT AND THE CLASS AS A WHOLE).

THE TEACHER WILL NEED TO BRING THE FOLLOWING EQUIPMENT FOR USE IN THE UNIT:

SEVERAL PACKAGES OF 5 x 8 INCH INDEX CARDS.

TWO DIFFERENT COLORED FELT TIP PENS.

SEVERAL SHEETS OF TAGBOARD.

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1st Week	1-A 1-B 2-A 1-C	Review 1-C 1-D 2-B 3-A 1-E 3-B	3-C 2-C	1-F 1-G 2-B 3-A 1-H 3-B	1-I
2nd Week	1-I	1-J	2-D	3-C	4-A 4-B 2-B 3-A 4-C 3-B
3rd Week	4-C 3-B	3-D 4-D (Test for Obj. 4)	5-A 5-B 5-C	5-A 5-B 5-C	5-A 5-B 5-C 5-E 5-F
4th Week	5-A 5-B 5-C 5-E 5-F	2-F	2-E 2-G (Test for Obj. 2)	1-K	3-E 3-F
5th Week	5-G	1-L (Test for Obj. 1)	3-G (Test for Obj. 3)	5-H (Test for Obj. 5)	

The numbers on the calendar refer to activities on the following pages, which parallel objectives and concepts. These are <u>suggested</u> activities which the instructor is free to modify and/or improvise.

1-A Begin this unit by asking the children questions such as the following to help them begin thinking about marketing of seafoods in the county:

How many of you have ever been to a fish market? (Ask for a show of hands).

What types of fish did they have for sale?

What other things did they have for sale?

Are there other places besides the fish market that you can purchase fish? Where? List. (Supermarkets, restaurants, etc.).

Where do these places get the fish they sell?

Ask the children to explain how they think these businesses go about getting the seafood products they offer for sale. Then show the COULD prepared transparency entitled, Two Stores, and ask the following questions:

What is there different about the ads placed by these two stores?

Why does Store A charge more for this fish (select one fish from the ads) than Store B?

How do you suppose either store decided what price to charge for the fish?

1-B ENRICHMENT ACTIVITY: The teacher may wish to instruct the children to make notebooks during their study of marketing. The notebooks could include such things as any reports, notes, vocabulary words, definitions, any pictures the children may have drawn or cut from magazines, and anything else the teacher or students wish to include. These notebooks could be displayed at the end of the unit for another class, PTA, open house, etc.

1-C Write the words wholesale, retail, and market on the chalkboard or overhead projector. Ask the children if they know what these three words mean. Allow the students to look up the definitions in a reference book and write them after the words; then ask the following questions:

(Referring to the list made in Activity 1-A) Are any of the businesses markets? Which ones? Which of these businesses wholesales seafood?

Which of these businesses retails seafood?

How does this process differ?

1-D (Correlates with Activity 2-B)

Suggest to the class that they view the COULD prepared media listed below to learn more about wholesale and retail markets:

16mm Sound Film: People Who Market Seafood.

Allow the students to volunteer to take notes on either of the two marketing processes.

Vocabulary words to define (correlates with Activity 2-B)

Wholesale Market Vocabulary	Retail Market Vocabulary
wet locks	invoice
cold room	fish box
wet room	receipt
shipping box	display case
invoice	dolly
hand lift jack	stock fish
hyster	cannery
skip	
log book	

Wholesale Marketing Jobs	Retail Marketing Jobs
fillet manager	clerk
laborer	owner
dock worker	manager
truck driver	

1-E FOLLOW UP: Allow the students who took notes on each marketing process to meet in groups and organize their notes into a step by step process. Instruct each group to present their process to the class. The children could list the steps on the overhead projector or chalkboard or on a piece of chart paper to be placed on a bulletin board for future reference. Briefly review the definitions of the words: markets, wholesale and retail. Help lead the students to conclude that many markets may sell seafood on both a wholesale and retail basis but may specialize more in one than the other, by asking questions such as the following:

Was all the selling done by the fishery wholesale selling? Explain.

Was all the selling done by the seafood market retail selling? Explain.

ALTERNATE ACTIVITY: Accept volunteers from the class to list the steps in each of the two processes. Discuss each step and list them on the chalkboard or overhead projector or on a piece of chart paper to be placed on a bulletin board for future reference. Briefly review the definitions of the words markets, wholesale and retail. Help lead the students to conclude that many markets may sell seafood on both a wholesale and retail basis but may specialize more in one than the other by asking questions such as the following:

Was all the selling done by the fishery wholesale selling? Explain.

Was all the selling done by the seafood market retail selling? Explain.

1-F Ask the students questions such as the following to help them begin thinking about the canning of fish.

In the films, we saw a customer ask the clerk to have the salmon smoked and canned. How do you can salmon?

How do you smoke fish?

Can smoked fish be canned?

1-G Suggest that the students view the media listed below to learn more about the smoking and canning of fish:

16mm Sound Film: People Who Market Seafood

Vocabulary words to be defined:

steam table	recorder
brine	smoke house
brine tank	screen box
cutting board	smoked fish
winch	can sealing machine
fish slicing machine	can washing machine
canning book	

Key occupations:

laborer	cooker
fish cutter	owner and manager
packer	bookkeeper
canner	

Instruct the students to take notes on the canning process as seen in the presentation. (Correlates with Activities 2-B, 3-A, and 3-B).
ALTERNATE ACTIVITY: Use the procedures suggested in Activity 1-I to arrange for a field trip to the cannery. Instruct the students to be aware of the process, jobs and equipment involved.

1-H FOLLOW UP: Accept volunteers to list the steps in both the canning and smoking processes on the chalkboard or overhead projector or on chart paper to be placed on a bulletin board for future reference. (Correlates with Activities 2-B and 3-A).

1-I ENRICHMENT ACTIVITY: Tell the class that you have arranged to have a field trip to a wholesale or retail seafood market. (See RESOURCE section of this unit). Let the students volunteer to ask questions during the interview from their questionnaires. (By accepting one volunteer for each question, more students will have a chance to participate). If ever the school has a portable tape recorder, the teacher may wish to instruct a student on its proper use and allow him to record the guide on the field trip. Encourage the students to bring their cameras along on the field trip and take pictures. At a later time, the students can edit these slides and tape a script to accompany their presentation. The show can be put on for the information of another class, PTA, open house, etc. By using his own personal camera, the teacher will obtain a permanent record of the field trip for use with other classes in the future.
ALTERNATE ACTIVITY: Discuss with the class how to arrange a field trip over the phone by use of questions such as the following:

How do you think we should go about arranging a field trip?
If we did call the person, what do you think he might like to know about us? (School, class, grade, what we are studying, when we would like to come, how many will be visiting, some of the things the class would like to know).

The students might enjoy role playing the part of a student calling about the possibility of a visit and the person being called. Ask the class for volunteers for the role playing. After several have tried, ask the class, or you may decide which of the students will make the call. (The teacher should have in mind the wholesale or retail facility that she wishes the students to visit before this activity. (See RESOURCE section of this unit). The selected student will make the call and report to class.
ALTERNATE ACTIVITY: Discuss with the class how to arrange a field trip through use of a written letter by asking questions such as the following:

How do you think we could go about arranging a field trip?
If we did write a letter to the company, what do you think they might like to know about us? (School, class, grade, what we are studying, when we would like to visit, how many will be visiting, some of the things the class would like to know).

If the students do not know how to head a letter, this might be a good time to discuss it. Then have the students each write a letter to the company asking the questions and giving the information decided upon by the class. Have each of the students read their letter to the class and let the class decide which one is to be sent; or you, as the teacher, may read the letters and decide. When the reply comes to the school, let a student read it to the class.

1-J FOLLOW UP: Listen to the taped interview (if a tape recorder is used) listing the information on the chalkboard or overhead projector. Help the students design a chart, listing job titles and information gathered from the interviews. Let some of the students transfer this chart to butcher paper or tagboard and mount the chart on a bulletin board for future reference.

1-K Instruct the students who have taken notes on the retail and wholesale markets to get together in their respective groups. Tell them to make lists of how the two marketing processes are alike and how they differ. Set a time limit for this activity. When the groups have finished, organize them into a large circle or square in the two marketing processes. Compile a master list of likenesses and differences and post it on a bulletin board for future reference.

1-L EVALUATION ACTIVITY (Test for Goal and Objective 1)
Given the choice of the wholesale or retail seafood markets in Coos County, the learners will: Participate in a panel discussion listing the similarities and differences in the two processes.

SIMILARITIES

-Both sell on retail and wholesale levels.
-Both must transport some of their product to the consumer.
-Both markets must buy stock fish.
-Both markets must make a profit.
-Both markets use a type of salesman to sell their products.
-Both markets use invoices.

DIFFERENCES

-Wholesale market sells in larger quantities.
-Wholesale market transports their own trucks and by common carrier.
-Wholesale markets sell to retail markets, whereas the retailer sells to the ultimate consumer.
-Wholesale markets sell through a fish broker whereas retail markets sell through a clerk or route man.
-The retail market may sell other goods besides seafood products.

2-A Hand out a ditto copy of the vocabulary words and key occupations titles as found in the VOCABULARY section of this unit. Instruct the students to define the words and describe the occupations as they come across them in their study of marketing.

2-B Select from the following procedures those which you feel will work best with your class:

a. List the vocabulary on the chalkboard under the two headings: Wholesale Marketing and Retail Marketing. When the students volunteer to take notes on either process, instruct them to define the vocabulary for that market.
b. Divide the vocabulary to be defined into small groups of words. Allow students to volunteer or appoint students to define words in the different groups.
c. List the vocabulary to be defined on the chalkboard. Instruct the students to define these words.
d. List the vocabulary to be defined on the chalkboard. Instruct the students to be aware of the words and be ready to tell their meaning after the presentation.

Follow up these activities by accepting volunteers from the class to define each vocabulary word.

2-C ENRICHMENT ACTIVITY: GAME: WORD DOWN

Teacher Preparation----None.
Objectives----------The object of this game is to see which team, at the end of the game, has the most members still standing.
Procedures----------Divide the class into two equal teams. Each team stands in a line facing the other on opposite sides of the room. A word or definition is given orally by the teacher to the student at the head of the line of first one team and then the other. If the correct answer is given, the word or definition is given to the first person in line on the other team. The next set of questions would be given to the second person in each line and so on until the end of the line is reached. At this time, the process begins all over.
Rules----------If the player being questioned gives a correct response, he remains standing. If the response is incorrect, the player must sit down. If neither player gives the correct response, both must sit down and someone already sitting is given a chance to answer. If he is correct, he rejoins his team at the end of the line.

2-D ENRICHMENT ACTIVITY: GAME: COLLEGE BOWL

Teacher Preparation----Make two different colored sets of all vocabulary words to be defined on 5"x8" cards, one word to a card.
Objectives----------To see which team, at the end of the game, has the most points.
Procedures----------Divide the class into two teams. Hand out the word cards, one color for each team, one card at a time to each student until all cards are gone. Give the definition orally

to the class. If a student has the card with the correct word on it, he may answer the question. If he thinks he has the right card, he may also try.

Rules----------To be able to answer, the student with the card must stand up and say "Call!" In this way the teacher sees and/or hears the first person to stand on each team. If the answer given by the first person to stand AND say "Call!' is correct, his team gets the point. If he misses the question, the first person who called on the other team gets a chance to answer. If he is correct, his team gets a point. If both players give incorrect answers, the definition is given again later on in the game.

2-E Hand each student a copy of the COULD prepared Crossword Puzzle. Accept a volunteer to read the instructions aloud while the rest of the students read along silently from their sheets. (At the end of Activity 2-G).

2-F ENRICHMENT ACTIVITY: GAME::: WORD POWER

Teacher Preparation----None

Objectives----------The object of this game is to see who, during the period of the game, can remain standing the longest. This person may be assigned the honorary title of Fishery Manager because he knows so much about the marketing of seafood products.

Procedures----------One student stands next to the desk of another. The teacher gives a vocabulary definition aloud. The first student to answer with the correct word gets to move on to answer another question. If the person who is standing does not answer the question correctly, he takes the seat of the person he is standing next to and that person then stands. If neither can give the correct term, the definition is kept and reused at a later time.

Rules----------In case of a tie, another definition must be given. Two students may not be standing at the same time. The first answer must be the correct one or both players sit and the next person in that row of seats stands.

2-G GAME: ARRANGEMENT EVALUATION ACTIVITY (Test for Goal and Objective 2).

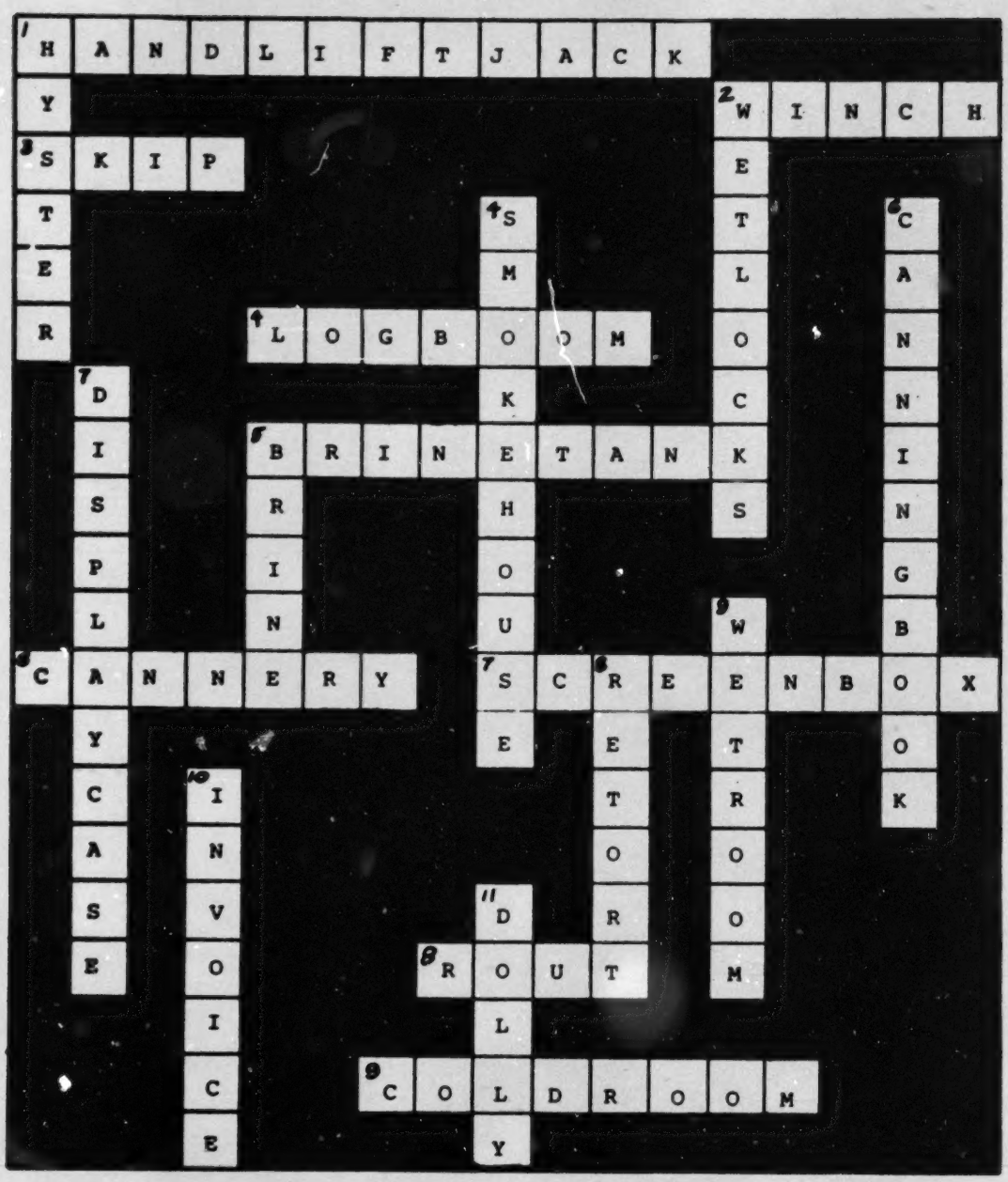
Teacher Preparation----The teacher should make up cards or strips of tagboard with the vocabulary word or key occupation on one and the definition on the other.

Objectives----------For the player to arrange the people holding the vocabulary word cards so they are standing under the current definition card. The winning player gets a point for his team.

Procedures----------The students select teams or the teacher can appoint them. The teacher then tapes three or more definition cards to the board for each team A and B. Holders from team A are given the corresponding word cards and allowed to stand under the definitions for team B and vice versa, making

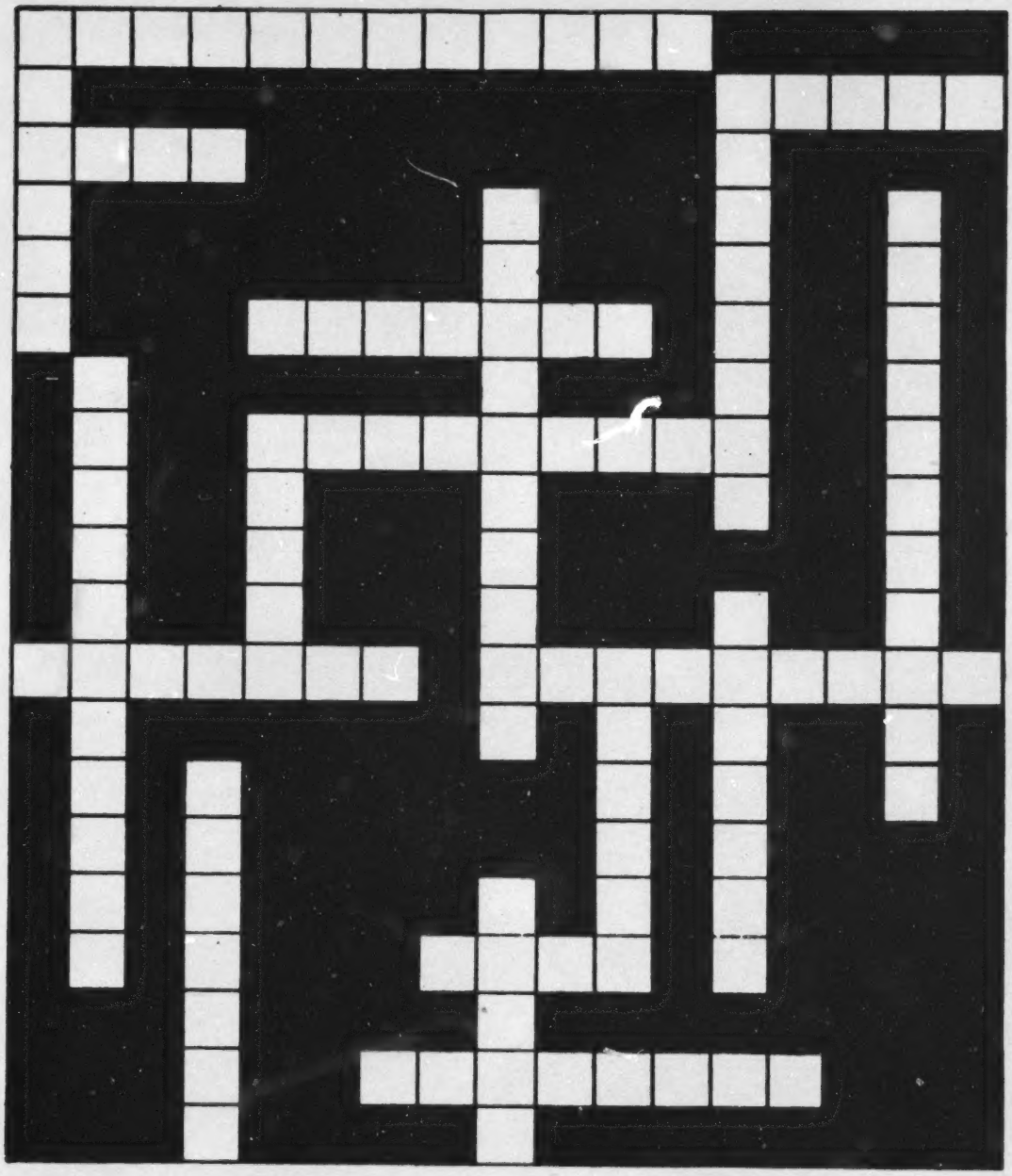
sure they are mixed up. An arranger is then selected from each team. He goes to the board and at the "go" signal, moves the holders under the correct definitions. The first arranger to arrange the holders under the correct definitions wins a point for his team. When he or she is finished, he must say "Call!"

Rules----------The holders trying to stump the arranger from the other team may stand under any definition, even the correct one if they choose. Arrangers must not begin until the "go" signal is given. When an arranger says "Call", he must not do any further arranging. If he is wrong, wait for the other arranger to finish. If both are wrong, select two new arrangers, more holders and place new definitions on the board. A variation would be to select new arrangers as soon as it is determined that an arrangement is wrong and in this manner keep the game moving until the correct arrangement is obtained. This would require the students to know who was to be the next arranger before the "go" signal was given. One point is given for a correct arrangement of all words and definitions. (NOTE: Set a time limit for arranging if you feel it necessary).



Instructions: Fill in the crossword puzzle with the words listed below:

Hand lift jack	dolly	brine tank	rout	smoke house
log book	hyster	screen box	invoice	skip
display case	cannery	retort	canning book	winch
cold room	wet locks	wet room	brine	



CROSSWORD PUZZLE DEFINITIONS

DOWN

1. The motor vehicle used to lift heavy loads at the fishery.
2. A name for the wax coated cardboard boxes used to ship fresh fish.
4. The shed where fish are smoked.
5. A solution or mixture of water, sugar and salt in which fish is dipped before smoking.
6. The book in which the type of fish, number of cans cooked, cooker number and amount of time the cans were cooked is recorded.
7. The refrigerated glass fronted counter where fish are placed for sale in the market.
8. Another name for the steam pressure cooker used to cook the fish in the sealed cans.
9. A refrigerated room kept at 32 or 33° above zero. It is used to store fish which will be shipped to market that evening.
10. A slip of paper with the company name on it telling the amount of fish in the order, the type of fish and how much it cost.
11. A wheeled cart on which heavy loads are placed. It is used to move basket and boxes from one place to another.

ACROSS

1. A flat pump type jack which can lift heavy loads. It is used in small or cramped areas where the hyster can't go.
2. An electrically powered drum around which cable, rope, or wire is wound.
3. A flat wooden platform used to pile boxes on so that a hand lift jack or hyster can carry many small boxes at one time.
4. The record kept by the truck driver of the number of hours he drives, loads, unloads and has off in a 24 hour period.
5. The large stainless steel pot in which the brine is kept.
6. Another name given to a retail market which also cans fresh and smoked fish.
7. The place where smoked fish is placed to cool before canning.
8. The roads followed and places stopped by the retail truck driver from the markets.
9. The refrigerated room where fresh fish are stored until ordered by the customer.

3-A Before each media presentation, select the procedure from those listed below you feel will work best with your class:

a. Instruct the students to list the occupation titles they see in the media presentation and a brief description of each.

b. Write the key occupations as listed for each media presentation. Assign one occupation to several students or accept volunteers for each title. Instruct the students to write out a brief description of that job.

c. Instruct the students to be aware of the different workers in the market and be ready to discuss their jobs.

3-B FOLLOW UP: List each occupation title on the chalkboard, overhead projector or on a sheet of chart paper. Accept volunteers from the class to write or tell about that worker's job. When the chart is completed, post it on a bulletin board for future reference.

3-C ENRICHMENT ACTIVITY: GAME: CHALLENGE

Teacher Preparation----None.
Objectives----------To see which team at the end of the game has the most points.
Procedures----------Two teams stand in separate lines facing each other. The first member of team A gives a job description to the first person in line for team B. The first person in team B must answer with the corresponding job title. If he provides the answer, it is then his turn to give a job description to a second member of team A. Follow this procedure alternating teams until each pupil has had a chance to give a job description to the other team and tell a job title.
Rules----------If the member called upon can not provide a job title, that job then goes to the other team. For each correct job title provided, that team gets one point. No help may be given a team member trying to think of a job title. Set an appropriate time limit. If the wrong job title is given, the person giving the description must say "Wrong". The chance to provide a job title then goes to the next person on the opposing team. (If the title given is correct, the teacher may wish the giver of the job description to signify a correct answer by saying, "Right, Correct, Point, etc").

3-D ENRICHMENT ACTIVITY: CROSSWORD PUZZLE MADE BY THE STUDENTS
(3-D.1)
In a class discussion, ask questions such as the following to help the children begin thinking about how crossword puzzles are constructed:
Have any of you ever worked a crossword puzzle? (Ask for a show of hands).
What things make up a crossword puzzle? (Lines form a grid, across and down definitions, blackened squares, etc.). List.
Draw a grid on the chalkboard or overhead projector and list five to ten words from the VOCABULARY section of this unit. Ask for volunteers to place the words somewhere within the grid. If the students try to place across and down words directly alongside one another, remind them that the letters must form words both across and down.

Fill in all unused squares. When the words have been placed in the grid, number the across words, then the down words, by placing numbers in the boxes containing the first letter of each word. Accept volunteers to write out or tell the definitions to first the across words and place them on the chalkboard or overhead projector. Repeat the procedure with the down words. Add to or repeat the procedure as necessary until the students feel they can construct their own puzzle.
(3-D.2)
Hand each student two pieces of graph paper with 1/2" squares. Then write the following instructions on the chalkboard, overhead projector or give them orally to the students:

a. Select at least ten words of your choice from the vocabulary list.
b. Print these words on the bottom of each piece of graph paper.
c. Draw the lines of the puzzle.
d. Put the words in the squares you have drawn.
e. Number the boxes containing the first letter of each down word.
f. Number the boxes containing the first letter of each across word.
g. Fill in all the unused squares with crayon or pencil.
h. On a separate sheet of notebook paper, list the definitions for all of the across words and number them to fit the puzzle.
i. Do the same thing for the definitions for the down words.
j. Copy your puzzle onto the other sheet of graph paper, but this time leave out the letters so your puzzle will be blank.

Instruct the students to exchange their puzzles and the definitions with a friend and clear their desks of everything else but a pencil. Then tell the students to complete their friend's puzzle and return it to him or her to be corrected. A time limit should be set by the teacher for this activity.

3-E Hand out at least three 5"x8" index cards to each student or instruct them to use notebook paper for this activity. List on the chalkboard or overhead projector (or refer to the vocabulary ditto from Activity 2-A) the key occupation titles as listed in the VOCABULARY section of this unit.
Instruct the students to include the following points in their descriptions: (List on the chalkboard or overhead projector).

a. The job performed by the worker.
b. Any special clothing worn on the job.
c. Any equipment used.
d. Whether the job is full or part time.

Instruct the students to write the title on the back of the card or sheet.

3-F FOLLOW UP: Accept volunteers to read their job descriptions to the class and allow the class to guess the occupations.
ALTERNATE ACTIVITY: Let the children design their own bulletin board and place the cards on it leaving room for people to write occupations.
ALTERNATE ACTIVITY: Take one or more job description cards per day and mount them on a section of the bulletin board entitled "Riddle Corner --Who am I?"
The class member who can tell the teacher the correct occupation title first will be the line leader, room monitor, etc., for that day.
ALTERNATE ACTIVITY: Allow the children to use the cards as flash cards working in twos or small groups during spare time.

ALTERNATE ACTIVITY: Use the cards to play the game CHALLENGE (Activity 3-C).

3-G EVALUATION ACTIVITY (Test for Goal and Objective 3).
Given their choice of any three key occupations, the learners will write a job description for each, omitting the title; show it to the class and allow them to guess the occupation titles. The descriptions should include the following;

a. The job performed by the worker.
b. Special clothing worn on the job.
c. Equipment used.
d. Whether the job is full or part time.

4-A Write the word "Environment" on the chalkboard or overhead projector then ask the students questions such as the following to help them begin thinking about how the environment could effect the seafood markets:

What does this word mean? (Allow the students to look the definition up in a reference if necessary).

What things can you think of that would make up our environment? List.

Would any of these things you have listed have any effect on marketing seafood products? Which one (or ones)? Explain.

Are there any other things in the environment which might have some effect on the seafood market?

Place this information on the chalkboard or overhead projector or a piece of chart paper. Save this list for use during Activity 4-C.

4-B Suggest to the class that they do some research with the purpose of adding or correcting the list made in Activity 4-A by listening to the COULD prepared audio tape recording entitled, The Bar, Weather, Pollution and The Market. Before listening to the tape, write the title on the chalkboard or overhead projector and ask the students about this title by using questions such as the following:

What does the word "bar" mean? Discuss its various meanings, allowing the students to look up definitions if necessary in a reference book.

Which of these definitions do you think the word in the title stands for? Why?

I am sure you have at least read this word "pollution". What does it mean?

How could pollution affect the seafood market?

Instruct the students to take notes on what things in the environment affect the market and how they affect it.

ALTERNATE ACTIVITY: Suggest to the class that they read the COULD prepared pamphlet entitled, The Environment Can Mean Business. Select from the procedures listed below the one you feel will work best with your class:

a. Assign or let the students volunteer to read the parts of the actors in the play. Since it is a fairly short play, several readings would be possible in one period.

b. Divide the class into small groups and let the students volunteer to read orally the parts in their groups. As the groups are reading the parts, write the following instructions on the chalkboard or the overhead projector:

INSTRUCTIONS: When you finish the play, write on a piece of paper:

1. The things in the environment which affect the seafood market.
2. How each of these things affects the seafood market.

4-C FOLLOW UP: For procedure A: When the class has finished reading the pamphlet, instruct them to list the things in the environment which affect the seafood market and what the effect is. Collect these papers, then accept volunteers from the class to add information to or make corrections in the information on the chart from Activity 4-A.

For Procedure B: Accept volunteers from each group to present their lists of effects to the class. As points are brought up that are not listed on the chart from Activity 4-A, write them on the chart.

NOTE: The worksheets in this section (#5) are divided into three levels of difficulty in math concepts. They rank from the most difficult to the easiest as follows:

1. The Salmon Market
2. The Crab Market
3. The Crab Stand

This fact should be kept in mind when assigning students to work in the different groups. These worksheets also require rounding of numerals. If your class has had adding, subtraction, multiplication and division of decimal numerals, they should not have trouble. If they have not, instruct them to round off answers to the nearest whole number. The "HINTS" included on the worksheets may be omitted at the discretion of the teacher. Simply place a piece of masking tape over the hint before making the thermal master for the ditto machine. An asterisk denotes answers which will vary according to the wages paid the worker by the business.

4-D EVALUATION ACTIVITY (Test for Goal and Objective 4)

The learners will list at least three of the four environmental factors listed below which influence the seafood processing industry in Coos County and relate what effect each has on the seafood market:

a. Foul weather can prevent the fishermen from catching any fish to sell fresh to the market.
b. Different fish are caught during different seasons. These fish must be canned or frozen to be sold later when none of that species is being caught.
c. The all weather bar allows fishing all year round.
d. Industrial pollution may decrease the number of fish in the ocean.

5-A Tell the students that for the next few days they are going to pretend that they are owners of a small seafood retail business. It will be their job to figure out workers' wages, what price they will charge for their seafood and other things. Place the three names of the businesses on the chalkboard or the overhead projector and assign students to work on the financial and marketing problems involved in that business.

5-B Hand out the appropriate worksheet to each of the students. Assign places for the three groups to meet and instruct the students to move quietly into their groups. Set any time limit to be observed over the period of the next few days in which you feel your students can complete this activity. Instruct the students to share the oral reading and discuss the problems among themselves. Move about and help the individuals or groups as necessary.

5-C As the groups have trouble with words, such as profit, overhead, stock, and costs, work with the group or the class to define these words and show their relation to the business.

5-D Allow each group to present their findings to the class. Use the COULD prepared overhead transparency entitled, The 3 Markets and allow the students to fill in the information from their worksheets. Help the students compare and contrast the two crab markets by asking questions such as the following:

Why are the stock costs higher at the crab stand than at the crab market?

What other differences in prices do you see between the two businesses? How would these differences determine how much the product would sell for?

5-E ENRICHMENT ACTIVITY: Some of the students may enjoy making posters to advertise the seafood product that they are selling at their market. If this idea is appealing to them, provide them with all the necessary art supplies to complete this activity.

5-F ENRICHMENT ACTIVITY: The students might also enjoy making a mural depicting their business, the workers, and any equipment that they might use. Provide the students with a working space and any art supplies they may request. Instruct the groups to sketch out their mural first so that they will get an idea of the size of paper they will need. Then tell them to decide how the work of making and coloring the mural will be divided among the group. There are several things that could be done with the finished mural:

a. Tell the students to use any appropriate cards from Activities 2-G and 3-E to label the mural. The cards can be glued to the mural itself or placed around the edges and attached to the worker or equipment by twine or yarn.

b. In Activity 5-G the children can tell about the business referring to the mural they have made.

c. The posters made in Activity 5-E may be posted around the mural to make an attractive bulletin board.

d. A game can be made of the teacher pointing to the equipment, job or process pictured in the mural and the students responding with the proper term. Teams could be chosen or a procedure such as that described in Activity 2-F.

5-G FOLLOW UP: Show the class the COULD prepared overhead transparency entitled, Two Stores and ask the students to suggest possible reasons for the differences in the prices. (i.e., more or fewer workers, higher or lower overhead costs, purchase of partially or fully processed stock fish, etc.). Then ask the students how the money paid to the workers helps other workers in the county. Lead them to conclude that this money buys products from businesses and helps pay the wages of the workers who sell the goods.

5-H EVALUATION ACTIVITY (Test for Goal and Objective 5)
Given the problematical situation of the economics involved in determining stock prices, the learners will determine the wages they can afford to pay their workers, their overhead costs and how much they must charge to make a profit from the business.

NAME_____

THE SALMON MART

YOU are the owner of a retail business in the county called The Salmon Mart. Listed below are some problems you must solve to help you determine what price you will charge for your product. Read the statements carefully and work out the answers to the questions asked.

FACT SHEET

OVERHEAD COSTS

Truck gas	$200
Rent	$100
Lights, heat, phone and garbage	$100
Gas to run smoke house	$ 25
Wood for the smoke house	$ 25

STOCK PRICES

You can purchase whole fresh salmon from a fishery in the county for 60¢ a pound. You will need to buy 10,000 pounds during this month.

WORKERS, HOURS AND WAGES

Clerk - works 120 hours a month.

Laborer - works 80 hours a month.

Fish cutter - works 80 hours a month.

Truck driver - works 60 hours a month.

Each worker wants at least $2.00 per hour, but you cannot afford to pay more than $4.00 per hour.

WORKSHEET

A. What is your total overhead cost? $_____
Total Overhead Costs

B. What is the total price you will have to pay for your stock and overhead? $_____
Total Stock Cost

C. How much will you have to make just to pay for your stock and overhead? $_____

D. How much would you have to sell your fish for to get the amount of money you need to pay for overhead and stock costs? $_____ Per pound

E. How many hours total do all the workers at the market work this month? $_____ Hours
Total Work Hours

F. What wage will you pay each worker? (To make things easier, pay all the workers the same wage). $_____ Per Hour

G. How much money will you have to make to pay all the wages for one month? $_____
Total Wage Cost

H. How much money must you make from the sale of fish to pay for stock fish, overhead costs and wages? $_____
Total Wage Cost

I. How much will you have to charge per pound for your fish just to make enough money to pay the cost of doing business? $_____ Per pound

J. If you wanted to make a profit from the market, how much per pound would you charge for your salmon? $_____ Per pound
Final Selling Price

K. What would your profit be used for?

_____

_____

_____

_____

_____

_____

L. When you and your workers spend your money for food, clothes, houses, etc., how does this help other workers in the county?

CONGRATULATIONS! Your business and others like it, along with the wholesale markets, contribute over $4 million a year to the economy of our county.

NAME_____

THE CRAB MARKET

YOU are the owner of a retail business in the county called the Crab Market. Listed below are some problems you must solve to help you determine what price you will charge for your product--crab meat. Read the statements carefully and work out the answers to the questions asked.

FACT SHEET

OVERHEAD COSTS

Gas for the truck	$100
Rent	$100
Lights, heat, phone and garbage	$100

STOCK COSTS

You can purchase cooked shell crab from the fishery in the county for 70¢ a pound. You will need about 1000 pounds of shell crab during the month.

WORKERS, HOURS AND WAGES

Clerk - works 120 hours a month.

Laborer - works 80 hours a month.

Crab picker - works 60 hours a month.

Truck driver - works 30 hours a month.

Each worker wants at least $2.00 an hour, but you can not afford to pay more than $4.00 an hour.

WORKSHEET

A. What is your total overhead cost for this month?

$_____
Total Overhead Cost

B. What is the total cost you will pay for the crab to sell at the market?

$_____
Total Stock Costs

C. What wage will you pay your workers an hour? (To make things easier, pay all workers the same wages.)

$_____ Per hour

D. How many hours will all your workers work this month?

_____ Hours
Total Work Hours

E. How much money will you have to pay the workers for the month?

$_____
Wage Costs

F. What will be your total costs for overhead, wages, and stock for the market this month? HINT: Add the answers from A, B, and C.

$_____
Cost of Doing Business

G. If from this shell crab you can get 500 pounds of crab meat, how much must you charge per pound just to pay for your overhead cost, wages and stock for the market? (This is without making any profit.) HINT: Divide the answer in F by the amount of crab meat you have to sell.

$_____ Per pound.

H. Any amount of money per pound charged over the amount you have listed in the answer to question G will be called

_____

I. You must make at least enough profit to pay for the next month's crab stock for the market. How much must you charge for your crab? HINT: Add the cost of the stock to the answer to question G and divide by the amount of crab meat you have to sell.

$_____ Per pound.
Final Selling Price.

J. When you and your workers spend your wages for food, clothing, housing, etc., how does this help other workers in the county?

CONGRATULATIONS! Your retail market and others like it, along with wholesale markets, contribute $4 million to the economy of the county.

NAME_____

THE CRAB STAND

YOU are the owner of a retail business in the county called The Crab Stand. Listed below are some problems you must solve to help you determine what price you will charge for your product -- crab meat. Read the statements carefully and work out the answers to the questions asked.

FACT SHEET

OVERHEAD COSTS

Gas for the truck	$40
Rent	$80
Lights, heat, phone and garbage	$50

STOCK COSTS

You can buy fresh crab meat from a local fishery for $3.00 a pound. You will need about 300 pounds of meat for the market this month.

WORKERS, HOURS AND WAGES

Clerk - works 160 hours a week

Laborer - (Also drives the truck) - works 80 hours a month.

The workers want at least $2.00 an hour, but you can not afford to pay more than $3.00 an hour.

WORKSHEET

A. What is your total cost for overhead?

$_____
Overhead Costs

B. What is the total amount you will pay for stock crab for the market?

$_____
Stock Costs

C. What hourly wage will you pay your workers? (To keep things simple, pay all the workers the same hourly wage.)

$_____ An hour

D. How many hours will all your workers work this month?

_____ Hours

E. How much money will you have to pay in wages this month? HINT: Multiply the answer in question D by the answer in question E.

$_____
Cost of Wages

F. How much money will you have to make at the market to be able to pay for all overhead costs, stock costs, and wages? HINT: Add the answers in questions A, B, and E.

$_____
Cost of Doing Business

G. How much will you have to charge for a pound of crab meat to be able to pay for all the costs of doing business? HINT: Divide the answer to question E by the amount of crab meat you have to sell.

$_____ Per pound
Final Selling Price

H. If you charge any more money a pound for your crab meat, you will have money left over after paying your bills. What is this left over money called?

_____

I. When you and your workers spend your earnings for food, clothing, housing, etc., how does this help other workers in the county?_____

_____

_____

_____

CONGRATULATIONS! Your retail market and others like it, as well as wholesale markets, contribute $4 million to the economy of our county each year.

COULD PREPARED MATERIALS

	Activity No.
16mm Sound Film	
People Who Market Seafood	1-D, 1-G
Printed Material	
Pamphlet: The Environment Can Mean Business	4-B Alt.
Audio Tape Recording	
The Bar, Weather, Pollution and the Market	4-B
Transparencies	
Two Stores	1-A
Three Markets	5-D, 5-G

RESOURCES

RESOURCE SPEAKERS

The following people have consented to act as resource people. They should be contacted at least a week to a month, in advance of their visit, to give them time to prepare for their presentation and gather materials needed.*

NAME	OCCUPATION	PHONE NO.
Tom Peterson	Owner: Peterson's Seafood	888-3251
Kerry Cox	Bandon Fisheries	347-2409
Larry Nelson	Manager: Eureka Fisheries	888-3248
Graydon Stinnett	Owner: Bandon Fisheries	347-2118
Doug Stafford	Owner: Chuck's Seafood Market & Cannery	888-4235
Terry Hartell	Manager: Point Adams Seafoods	--------
Stan Meyer	Marketing Representative, Peterson's	888-3251
Bruce Mate	Marine Extension Agent	267-7009
Roy Sinclair	Fillet Manager, Peterson's Seafood	888-3251

*Some parents of students in your classroom may be able to serve you as resource speakers. If this is the case, they should be contacted.

MARKETING SEAFOOD

The seafood marketing done in Coos County is done at two different levels; the retail level and the wholesale level. These processes are at two extremes; the one (retailing) is usually a small family owned market, the other (wholesaling) is carried on to the greatest extent, not by the fisheries, but by fish brokers. Both the wholesale and retail seafood markets, however, do perform both types of marketing. If we examine each market separately, their functions become more clear.

The fisheries in Coos County do sell on the retail market, but only as a courtesy to local customers. Their main market is on a wholesale basis covering almost the entire west coast. Since it is impossible for these fisheries to reach their wide spread customers on a regular truck route, they commission a fish broker to do their selling.

This man or woman is usually located in one of the larger metropolitan areas of the Pacific coast. A call from the fishery provides him with information as to the types of fish available, the date it will be ready for shipment and the quantity of each species. The broker relays this information by phone to large retail outlets who will place their order through him. In this manner, the brokers can contact many customers in many cities in a short period of time. He then returns a call to the fishery and gives the order, including the customer's name and address, quantity and type of fish ordered, and mode of shipment to the fishery manager or fillet manager. The fresh fish are shipped to the customer later that day and the customer receives his bill by mail. For his work, the fish broker is paid a commission on each sale. The whole process makes possible a much broader marketing of fresh fish over a larger geographical area than would otherwise be possible.

Compare, if you will, the wholesale process carried out by almost all of the retail markets in the county. They must first buy their fresh and frozen seafood products from a local fishery. They use their own trucks to pick up the order and deliver it to their market. (This, of course, is not true if they buy and process fish directly from the commercial fisherman. A daily call to local retail chain stores such as McKay's and Safeway is made to tell them what fish is available and to take any orders they may have. Another daily call or visit to local restaurants will be made to get their orders for both fresh and frozen fish to be delivered that day. After these local deliveries are made, the truck is loaded with all the fresh and frozen fish the owner thinks he can sell in the county and he begins his route. He, not a fish broker, becomes the salesman as he stops at the various restaurants and stores along the way, telling them what he has for sale, and delivering any orders on the spot.

Along with these duties as wholesaler on a local level, the owner usually has a small seafood market from which the general public can purchase fresh fish. These markets vary in size and complexity from those which process no or very little seafood, to those which process almost all their stock. They may sell only seafood, only a few types of seafood, or most types of grocery and seafood items found in smaller grocery type stores. Their main service, in any case, is to provide the freshest seafood products possible to their customers. Another important function of the smaller retail market is that of canning and smoking of fresh fish caught by sport fishermen. Although this canning and smoking of fresh fish is a form of processing, it is done mainly as a service to sport fishermen and/or for market stock. Very little canning is done for wholesale marketing.

It becomes more evident that neither the fisheries or the seafood markets really sell only wholesale or retail. The services they perform will overlap into both markets, though they will usually specialize in one or the other.

It was deemed unnecessary in this unit to include a description of the marketing of oysters. Since this is a "farming" type business, enough oysters are planted during the planting season to fill all the orders for the coming year. The customer will either call the farm or come directly to plant to order the oysters. This marketing process is very similar to that of the wholesale market except that the customers contact the owner to place their orders.

On the following pages you will find a list of suggested teacher readings, detailed job and process explanation and flow charts for each market as well as job descriptions for all the key occupations in this unit. This information is meant for your consumption to provide you with a broader background in preparation to teaching this unit.

SUGGESTED TEACHER READING

Background on Oregon's Marine Industry, Cooperative Extension Service, O.S.U., Extension Circular #750, Corvallis, 1970.

How to Sell Seafood and Net More Profits, O.S.U. Sea Grant Marine Advisory Program, Corvallis, 1970.

Guidelines For The Processing of Hot-Smoked Chub, U.S.D.I., Bureau of Commercial Fisheries, Circular #331 Washington, 1970.

Refrigeration of Fish--Part 5; Distribution and Marketing of Frozen Fishery Products, U.S.D.I., Fish and Wildlife Service, Fisheries Leaflet No. 431, Washington, 1956.

WHOLESALE MARKETING JOB AND PROCESS EXPLANATION

1. The fillet manager gets a radio message from the boat captain telling the fishery how much fish they caught.
2. From these figures, he computes how many pounds of seafood product they will get from the fish after it is processed.
3. Each morning the fillet manager may call the fish broker and tell him how much fish is available for marketing and what type.
4. The broker calls his accounts and tells them what types and the amount of fish that is available. They place their order at that time.

5.1 The fish broker then calls the fillet manager and tells him which customers want certain types of fish and the amount they ordered.

5.2 Small buyers from around the state may call in an order to be shipped by common carrier. Chain stores may also call in their orders locally and ask that they be delivered by the fishery.

6. The fillet manager makes out an invoice and tells the laborers how many pounds of fish to remove from the cold room. The laborer uses hand lift jacks and hysters to remove the fish from the cold room.
7. He ices the shipping boxes (called wet locks) and places the fish in them, then takes the fish to the wet room.
8. By noon the fillet manager calls the trucking firm that makes regular stops at the fishery. He lets them know the size of the shipment so they can send a truck of the appropriate size to handle the load. Company trucks, too, have a regular schedule, but the drivers of these trucks are given company money to pay for food, tools and phone calls and a credit card for buying gas and deisel fuel. They follow the same steps from this point on.
9. By 5 o'clock in the evening, the dock workers load the trucks. They remove the shipping boxes or wet locks from the wet room with a hand lift and/or hyster, then use the hyster to load the boxes onto the truck.
10. The truck driver then delivers the shipment. He must keep a log of the hours he drives and the hours he works unloading the truck in each 24 hour period.
11. At the delivery point, he gives the buyer the invoice and the buyer makes a box count to see that the order is all there. The truck company will also keep a copy of the invoice.
12. The bookkeeper mails a copy of the invoice to the buyer the day the shipment is made.
13. The buyer sends a check or money order to the fishery to pay for the shipment when he receives the invoice in the mail.
14. The bookkeeper may pay the trucking company at the end of the month when she receives the bill if the shipment was not sent C.O.D.

WHOLESALE MARKET JOB FLOW CHART

RETAIL-WHOLESALE MARKET
JOB AND PROCESS EXPLANATION

1.1 The owner will call the wholesaler to order processed frozen fish to be sold on the wholesale and retail markets. The fish will be sent by truck to the market.

1.2 The owner will call the wholesaler to find out what types of fresh processed fish are available or will be available later in the week. He then goes to the local fishery, loads the fish into his fish boxes, ices them and loads the boxes onto the truck.

2. The owner will call the local grocery stores, tell them what types of fish he has and takes their orders for the fish. He then must load the ordered fish onto the truck from the cold room and delivers it to the store. He makes out an invoice to leave with the store and keeps a copy for the market.

3. For retail grocery stores, markets or restaurants on the routes out of town, the owner loads fresh fish that he thinks he can sell onto the truck and begins his route. The driver tells the retailer at each place what fish is in the truck. If the retailer buys some of the fish, the driver makes out an invoice for the buyer and keeps one copy for his business. He may get paid at that time, or he may bill the customer at the end of the week or month.

4. The market owner will go to or call local restaurants every morning to tell them what fresh and frozen fish he has available. He writes their orders on an invoice, loads the truck and makes the delivery, leaving a copy of the invoice with the buyer. They may pay him cash upon delivery, or wait to be billed till the end of the week or month.

5. The clerk takes fresh fish from the cold room and arranges it in stainless steel pans or on stainless steel trays. She then places the trays and pans in the refrigerated display case.

6. The clerk may also stock the shelves with any groceries or other items to be sold at the market. She may use a price book to look up the prices for each item and stamp or write the price on the product.

7. She may help the customer select fresh fish from the display case or suggest a certain type of fish the customer may need to prepare a specific seafood dish.

8. When the customer has made the selection, the clerk will remove the fish from the display case, weigh it, and wrap any fillets and rex cuts in paper. She will place crab and shrimp meat in cardboard containers.

9. She then adds up the amount of the purchase on an adding machine or the cash register and makes change for the customer. She will then place the items purchased in a bag.

10. Once a week or more often, she will wash down the display case with warm water and detergent. The racks, trays and pans must also be washed in detergent.

11. When a certain type of fish comes onto the market, the clerk may call any special customers to let them know that this fish is now in stock.

12. The owner or clerk may order canned seafood products from a wholesaler in another area for retail sale in the market. Items such as oysters, clams, etc., which are not sold by the fisheries are usually among these items.

13. If the market has canning facilities, the clerk or owner will take orders from the customer for custom canned fish. The customer brings in the fish that he wishes canned and the clerk gives him a canning number and tells him the date that he can pick up the canned fish.

JOB AND PROCESS EXPLANATION
CANNING SMOKED FISH

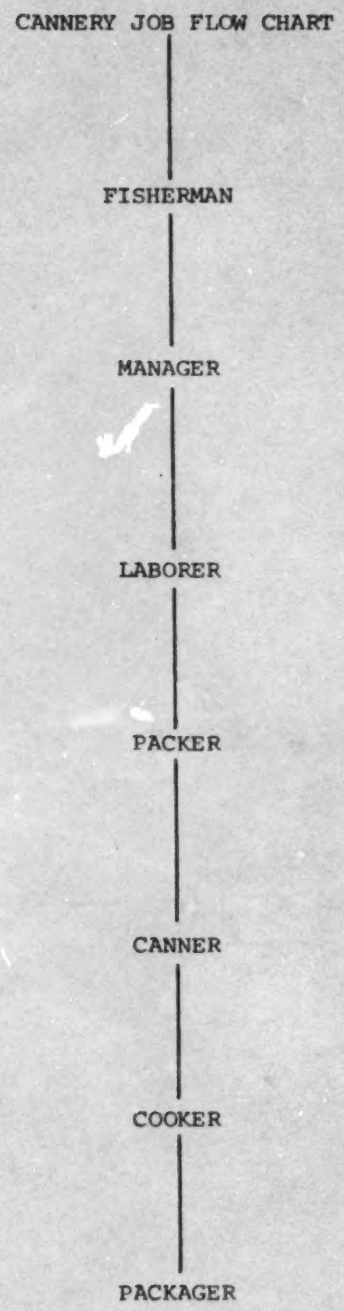
1. The fish are brought in by the fishermen.
2. The manager weighs the fish on a scale.
3. The manager makes out the receipt listing the species of fish bought, the weight, the amount paid the fisherman, and the commercial fisherman's license number. He then pays the commercial fisherman for the fish.
4. In the case of salmon and sturgeon, the fish are washed thoroughly by a laborer who may also cut the heads off at that time. He places crushed ice in the bottom of a fish box and places the fish, layer at a time, into the box placing ice in the belly cavity to prevent the meat from spoiling during storage. In the case of bottom fish, they are just iced and placed in the cold room.
5. The laborer puts the fish box in a cold room to cool the fish overnight. This is done because fish that is cut while warm will wrinkle when canned and cause a bad seal between the lid and can.
6. The laborer removes the box from the cold room and takes it to the cutting table where the fish cutter inserts the knife into the belly cut and pushes the knife out the back so when the knife is pulled the length of the fish, it will cut off a side of meat leaving the backbone attached to the other side. In the case of bottom fish, the filleter fillets the fish leaving the skin on.
7. The fish cutter then cuts the backbone from the remaining side of the fish and places the two cuts of fish in a plastic pan.
8. A laborer takes these full pans to the brine tank and dips the fish in the brine solution of salt, sugar, and water. He then removes the fish and places them back in the pan.
9. A laborer carries the pan out to the smoke house and lays the fish on the racks one by one. He lights the gas flame and places some type of hardwood in the fire. The gas flame keeps the wood smoldering, creates smoke to cure the fish.
10. The laborer keeps the fires stocked with wood. When the fish has reached the right color and firmness, he removes the meat from the house and places it in the screen box where it is left to cool.
11. The laborer then takes the cooled meat into the packers who place the side of smoked fish on a cutting board and use a knife to cut off enough meat to fill the can. She then places the meat into the can and stacks them at the end of the packing table.
12. The canner takes the cans and places them on the steam table where they are left for a period of time to heat. The heat kills any bacteria which might grow during the cooking process.
13. The canner takes the can and places it in the can sealing machine. (On the smaller machine, the canner must place a lid on the can. On the larger can sealing machine, the lid is placed automatically.) He then activates the machine which mechanically seals the lid to the can.
14. He then places the cans in the can washing machine which washes the cans and rolls them down a tray at the other side of the machine.
15. The cooker removes the cans from the tray and places them in stacks in a metal frame basket set on a dolly. He then moves the basket to the retort or pressure cooker and uses the winch to lift the basket into the cooker.

16. The cooker then fastens the lid on the retort and turns the valve to allow steam to enter the pot. The cans pressure cook for about 90 minutes.
17. The cooker removes the basket with the use of a winch and places it on a dolly. He then wheels the basket to the packaging table where a laborer removes the cans, checks the number of cans and the seals on each can and marks them with a hand stamp telling the date, cooker number, and batch number.
18. If it is not a busy day, he or she may then label the cans. If not, the cans are placed in cartons and the boxes marked as to the contents. A laborer then takes these cartons to a store room until they are needed in the store.

JOB AND PROCESS EXPLANATION
CANNING FRESH FISH

1. The fish are brought in by the fishermen.
2. The manager weighs the fish on a scale.
3. The manager makes out the receipt listing the species of fish bought, the weight, the amount paid the fisherman, and the commercial fisherman's license number. He then pays the commercial fisherman for the fish.
4. In the case of salmon and sturgeon, the fish are washed thoroughly by a laborer who may also cut the heads off at that time. He places crushed ice in the bottom of a fish box and places the fish, layer at a time, into the box placing ice in the belly cavity to prevent the meat from spoiling during storage. In the case of bottom fish, they are just iced and placed in the cold room.
5. The laborer puts the fish box in a cold room to cool the fish overnight. This is done because fish that is cut while warm will wrinkle when canned and cause a bad seal between the lid and the can.
6. The laborer removes the box from the cold room and takes it to the cutting table where the fish cutter inserts the knife into the belly cut and pushes the knife out the back so when the knife is pulled the length of the fish, it will cut off a side of meat leaving the backbone attached to the other side. In the case of bottom fish, the filleter fillets the fish leaving the skin on.
7. The laborer removes the box from the cold room. He removes the fish and cuts off all the fins, then washes the fish again and places it in a clean fish box. He takes this box to the fish cutter.
8. The fish cutter places the fish on the tray of the cutting machine and then activates the machine and moves the tray with the fish on it across the blade thereby cutting off a slice.
9. He then drops the slice into a pan which, when full, is taken to the packing table. The packers dip the meat in a salt and water solution and then place it in a can, then stack the cans at the end of the packing table.
10. The canner takes the cans and places them on the steam table where they are left for a period of time to heat. The heat kills any bacteria which might grow during the cooking pressure.
11. The canner takes the can and places it in the can sealing machine. (On the larger machine, the lid is placed automatically.) He then activates the machine which mechanically seals the lid to the can.
12. He then places the cans in the can washing machine which washes the cans and rolls them down a tray at the other side of the machine.
13. The cooker removes the cans from the tray and places them in stacks in a metal frame basket set on a dolly. He then moves the basket to the retort or pressure cooker and uses the winch to lift the basket into the cooker.
14. The cooker then fastens the lid on the retort and turns the valve to allow steam to enter the pot. The cans pressure cook for about 90 minutes.
15. The cooker removes the basket with the use of a winch and places it on a dolly. He then wheels the basket to the packaging table where a laborer removes the cans, checks the number of cans, checks the seals on each can, and marks them with a hand stamp telling the date, cooker number and batch number.

18. If it is not a busy day, he or she may then label the cans. If not, the cans are placed in cartons and the boxes marked as to the contents. A laborer then takes these cartons to a store room until they are needed in the store.


CANNERY JOB FLOW CHART
FISHERMAN
MANAGER
LABORER
PACKER
CANNER
COOKER
PACKAGER

BOOKKEEPER

OCCUPATIONAL DESCRIPTION

The bookkeeper makes out and sends the bills at the end of the month. She writes out and mails checks to pay for utilities, checks the records of each worker to see how many hours he or she has worked and computes the pay checks. She then makes out the paychecks for the market. She must also keep records of the canning by placing the date on each of the timing disks from the cooker recorders. She gets this information from the canning book. Once a month the worker makes out a report to be sent in to the United States Department of Agriculture telling the number of cans of each species cooked,the cooker number, and the date cooked. At this time also, she makes out a report to be sent to the Oregon State Fish Commission showing how much fish they have purchased from the commercial fishermen, the species, and the date of purchase.

EQUIPMENT

Record books, record discs from the cookers, carbon copies of the tickets given to the fishermen, adding machine, checks and other records of the business that the market has carried on during the month.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, though any courses taken in highschool dealing with business and bookkeeping would be helpful.
Training: Will get some on the job training in the methods used at that market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done indoors and in quiet surroundings. The worker is subject to no immediate hazards and needs only average physical strength and endurance.

WORKER CHARACTERISTICS

Aptitudes: Must possess above average aptitude in math, but only needs average aptitude in motor coordination and manual dexterity.
Temperament: Must be willing to work accurately with figures while not under direct supervision.

CHANCES FOR PROMOTION

Has about reached the top of the ladder in the smaller businesses.

CANNER

OCCUPATIONAL DESCRIPTION

Takes the cans from the end of the packing table and places them in the steam table for a period of time. Then places the can in the can sealing machine. For the machine used to seal the 1/2 pound cans, he will place the lid on the can and then activate the machine to seal the can mechanically. If one pound cans are being used, he will place the can in the machine and activate it to seal the can mechanically. He then places the cans in the can washing machine which automatically washes the cans and rolls them out the other side.

EQUIPMENT

Steam table, 1/2 pound can sealing machine, and cans, boots, plastic apron and a tally sheet to keep track of how many cans are sealed.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in running the machines at the market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done indoors under fairly quiet conditions. The worker is subject to hazards of moving machinery. He needs only average strength and endurance; must be able to stand to do the work for long periods of time.

WORKER CHARACTERISTICS

Aptitudes: Must possess average aptitude in motor coordination, manual dexterity and eye-hand coordination.
Temperament: Must be able to perform repetitive tasks for long periods of time.

CHANCES FOR PROMOTION

This job can be done by about anyone in the market with the knowledge of how to run the machines. Usually done by the manager.

CANNERY LABORER

OCCUPATIONAL DESCRIPTION

This job entails many different things at the market and can be handled by more than one person. The laborer uses a hose and washes the fresh fish that come into the market. He then puts crushed ice in the bottom of the fish box and places the fish in the box in layers. If they are salmon, he will ice the belly cavity of each fish. He then takes the box into the cold room and leaves it there overnight. He removes the box the next day and will cut the head off the fish. He may cut the fins off the fish if it is to be canned fresh. He then takes the fish to the cutter if it is to be canned fresh or to the smoke house if it is to be smoked. He lights the gas flame in the house and loads hard wood into the flames. When the smoke is formed, he will place the fish on the racks of the smoke house. He checks the fish every so often and when they are the right hardness and color, he will remove them and take them to the screen box and place them on the racks to cool. When they have cooled, he will take the fish to the packers.* After the cans of fish have been removed from the cooker, he checks the seal on each can and counts the cans to see that the correct number are placed in each order. He then hand stamps the cans with a stamp telling the date of cooking, the cooker and the batch number. He then places a label on the can or places the can in cartons he takes and marks the box as to contents and takes them to the store room. They will be labeled when they are needed to stock the shelves.

EQUIPMENT

Cartons, fish boxes, plastic apron, boots, plastic pans, smoke house, screen box and hand stamp.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the methods of work used at the market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done mostly indoors under fairly quiet conditions. The worker is subject to hazards of burns from handling hot smoked fish and must have above average physical strength and endurance to lift the fish boxes and bins full of fresh and smoked fish.

WORKER CHARACTERISTICS

Aptitudes: Must have above average aptitude in motor coordination and manual dexterity.
Temperament: Must be able to perform repetitive type tasks for long periods of time while under direct supervision. Must also be able to take orders and follow them well.

CHANCES FOR PROMOTION

This is a part time job.

*If the fish is to be canned fresh, he will cut off the fins and take the fish to the fish cutting machine.

COOKER

OCCUPATIONAL DESCRIPTION

The cooker takes the cans as they roll out of the can cleaning machine and places them in stacks in the cooking basket. He then rolls the basket to the cooker and uses a winch to lift the basket into the cooker. He seals the lid on the retort and turns the valve to allow steam to enter the pot and adjusts the pressure and temperature for cooking. After about 90 minutes, he removes the basket with the winch, places it back onto the dolly, and rolls it to the packaging table. He may unload the basket. Then he repeats the process. In the market, there may be more than one cooker, so he will have to watch both of these machines. He enters the date, cooker and batch number, number of cans and length of time cooked in the canning book. On custom canning orders, he also enters the customer's number.

EQUIPMENT

Cooking basket, retort, dolly, winch, plastic apron, boots and sometimes gloves.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the method of cooking used at the market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done mostly indoors and under fairly quiet conditions. The worker is subject to the hazards of falling loads and working around high pressure steam retorts all the time. He needs only average strength and endurance.

WORKER CHARACTERISTICS

Aptitudes: Must have average aptitude in motor coordination and manual dexterity.
Temperament: Must be able to perform repetitive tasks for long periods of time.

CHANCES FOR PROMOTION

This job is usually done by the manager or one of the other workers in the market.

DOCK WORKER

OCCUPATIONAL DESCRIPTION

The worker uses the hyster to move the boxes from the wet room to the loading platform near the dock. He will drive the hyster into the truck and place the load securely inside, then return to the wet room for another load. When the truck is loaded, he will remove the ramp that leads from the loading platform into the truck so that the driver can proceed with his job.

EQUIPMENT

Hyster, shipping skip, appropriate clothing for the weather, boots and sometimes gloves.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the driving techniques, hyster operation and loading procedures used at the fishery.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done both indoors and out, but mostly outdoors. The worker needs above average physical strength and endurance to position large loads. He is working under fairly noisy conditions caused by the hyster, trucks and moving machinery in and around the working area. He is subject to hazards of falling or shifting loads and moving equipment in the area.

WORKER CHARACTERISTICS

Aptitudes: The worker must possess above average aptitude in motor coordination, manual dexterity, eye-hand coordination and depth perception.
Temperament: Must be willing to work at a repetitive task for long periods of time without direct supervision.

CHANCES FOR PROMOTION

He could be promoted to dock foreman.

FILLET MANAGER

OCCUPATIONAL DESCRIPTION

This man is in charge of the packaging of processed seafood products into the shipping boxes. He marks the box with a marker telling the weight and the type of fish inside. He makes phone calls to the fish broker every day telling him what fish and the amount that will be available for sale that day. He then takes the call from the fish broker and makes out the invoices for the different customers. He takes these invoices and gives directions to the laborers telling them what amount of a certain type of fish will have to be taken out of the cold rooms. He helps the laborer place the fish in the shipping boxes and marks the boxes for shipment. He will also help the laborer ice down the shipment if necessary. When the truck arrives, he gives orders to the laborers and helps them remove the shipment from the wet room and place it on shipping skips to be loaded into the trucks. He may also take radio messages from the boat captains who tell how much fish they will be bringing in to the fishery and calculate how much seafood product will be obtained from that load of fish.

EQUIPMENT

Invoices, radio, telephone, shipping boxes and skips, boots, plastic apron, gloves, crushed ice, marking pen, hyster and hand lift jack.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: This man will have been promoted from one of the lower jobs as he learns more and more about the operation of the marketing end of the fishery. He usually has the most experience of any of the men working at the plant.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done inside the fishery and out in the weather. The worker must be able to perform the jobs that he is supervising as well as or better than the workers. He should have above average strength and endurance.

WORKER CHARACTERISTICS

Aptitudes: Must possess above average aptitudes in math and the scheduling of his and other workers' time.
Temperament: Must be able to direct the work of others in the fishery and yet be able to get along with the workers. He must be able to work without direct supervision and see jobs that have to be done as well as delegate someone to do these jobs or do them himself.

CHANCES FOR PROMOTION

This job is just about like that of a plant manager. The only promotion would be if the worker were to be promoted to manager.

FISH CUTTER

OCCUPATIONAL DESCRIPTION

Takes the cleaned fish from the container and places it on the cutting board of the packing table. Takes the cutting knife and inserts it in the belly cut made by the fisherman on the boat. Pushes the knife out through the back of the fish on one side of the backbone so that when the knife is run the length of the fish toward the tail, a side of meat will be obtained which lacks the backbone. Places the knife beneath the backbone on the remaining side of the fish and cuts the backbone free. She then places the sides of meat into another container. If the fish is to be canned fresh, the cutter will place the fish on the sliding tray of the automatic cutter and adjust the blade to cut off a slice just thick enough to fill the can. He or she will then activate the water flow and the machine and move the tray across the blade, cutting off a slice. She then moves the fish toward the edge of the tray and repeats the cutting process. She then stacks the slices in a plastic pan to be taken to the packing table.

EQUIPMENT

Cutting board, knife, cutting machine, plastic pans, plastic apron, boots and hair net.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the methods used in the market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done indoors under fairly quiet conditions. The worker is subject to hazards of the moving blade of the cutting machine and from possible injury from a knife which slips. Must have only average physical strength and endurance.

WORKER CHARACTERISTICS

Aptitudes: Must possess average aptitude in motor coordination, manual dexterity and eye-hand coordination.
Temperament: Should be able to do a repetitive task for long periods of time and work under direct supervision.

CHANCES FOR PROMOTION

This is only a part time job, but if the worker learned enough about the market and its operation, she could be promoted to full time employee.

FISHERY LABORER

OCCUPATIONAL DESCRIPTION

This worker does most of the physical labor that is done in packaging and moving the seafood products from the cold room to the truck. He takes orders from the fillet manager who tells him how much of a specific species of fish should be removed from the cold room. He uses the hand lift jack or the hyster to bring the fish out. He will ice the shipping boxes and place the fish in them. He will then stack the boxes on a skip ready to be taken to the wet room. When the truck arrives, he may take the boxes from the wet room and place them in an area where the dock worker can use a hyster to lift them and carry them to the truck.

EQUIPMENT

Hand lift jack, hyster, boots, gloves, clothing appropriate to the temperature of the plant and shipping skips.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the methods of packaging and shipping used at the fishery.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done mostly indoors, but the worker is in and out of the cold room. Must possess above average physical strength and endurance to move and lift the heavy loads. The worker is subject to the hazards of shifting and falling loads and moving equipment in and around the working area.

WORKER CHARACTERISTICS

Aptitudes: The worker must possess average aptitude in motor coordination and manual dexterity.
Temperament: Must be able to follow directions in getting the fish from the cold room to the wet room. He must be able to work well under direct supervision and with other people.

CHANCES FOR PROMOTION

This is usually a beginning position in the plant. If the worker shows potential and a desire to learn the business, he could be promoted to any other job in the fishery.

MANAGER-ASSISTANT MANAGER

OCCUPATIONAL DESCRIPTION

These two jobs are very much alike in the skills and knowledge needed to perform them well. The worker must know all of the jobs in the market and be able to perform them as well as or better than the employees. He is responsible for seeing that all of the workers are contacted when there is fish to process and that they do their respective jobs. He may wait on customers and perform the function of a sales clerk as well as that of the truck driver when necessary.

EQUIPMENT

All of the equipment used in the market.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will have received training in all aspects of the business as he or she has worked his way up through the jobs.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done mostly indoors in fairly quiet conditions. The worker is subject to any of the hazards of the various jobs in the market at which he or she is working at different times. Must possess above average strength and endurance to be able to do any of the jobs at the market.

WORKER CHARACTERISTICS

Aptitudes: Must possess above average aptitudes in math, bookkeeping and other business skills. Must also possess above average physical strength and endurance.
Temperament: Should be able to supervise employees in a firm and friendly manner. He or she must be able to teach the new workers their jobs.

CHANCES FOR PROMOTION

If he or she is the assistant manager, he could be promoted to manager, but as manager the worker has reached the top of the ladder unless he buys his own business.

PACKER

OCCUPATIONAL DESCRIPTION

Places the smoked fish on the cutting board and cuts off a slice of meat just large enough to fit into the can being used. Repeats this process for each can. She shoves the cans to the end of the packing table. For fresh fish, she takes the fish that have been cut by the machine and places it in the can. She may use the knife to cut off any excess meat. She then shoves the can to the end of the table.

EQUIPMENT

Cutting board, knife, cans, plastic apron, hair net and boots.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training from the more experienced workers or the assistant manager.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done indoors in fairly quiet conditions. The worker is subject only to hazards of cuts caused by a slipping knife, and only needs average physical strength and endurance. The worker will have to stand to do the work.

WORKER CHARACTERISTICS

Aptitudes: Must possess average aptitude in motor coordination, manual dexterity and eye-hand coordination.
Temperament: Should be able to get along well with other workers and be able to perform repetitive tasks for long periods of time.

CHANCES FOR PROMOTION

This is only a part time job.

SALES CLERK

OCCUPATIONAL DESCRIPTION

He or she helps the customer identify and select fresh fish and shell fish from the showcase and places the fish on a scale to weigh out the desired amount. She wraps the purchase in a paper or plastic bag or may place it in a cardboard carton and then place it in a sack. She then rings up the sale on the cash register and makes change if necessary. Once a week or more often, she will remove the trays and pans from the refrigerated display case and wash down the insides, racks, pans and trays with detergent and hot water. She may place prices on other items that are sold in the market and place these on the shelves. She is responsible for keeping the trays and pans in the display case filled with fresh fish from the cold room. For special customers, she may call when their favorite fish comes into the market from the fisheries. She may be responsible for taking phone orders for fresh and frozen fish and may even deliver to order in the truck. When a sport fisherman brings in his catch to be smoked and/or canned, she will weigh the fish, give the customer a receipt with his number on it and take the fish to the canning area to be canned. If there is canning done at the market to obtain stock canned fish, the clerk may pay the fisherman for the fish and make out a ticket or invoice telling the type and weight of the fish, the commercial fisherman's license number and the date of the purchase.

EQUIPMENT

Cash register, wrapping paper, scale, fish trays and bags.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in the methods of retail selling used in that store.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done inside and under quiet conditions. The worker is subject to no immediate hazards and needs only average physical strength and endurance.

WORKER CHARACTERISTICS

Aptitudes: The worker should possess average aptitude in motor coordination and manual dexterity.
Temperament: Should be able to meet with the public and be helpful to them in selecting the best fish for their needs. Should like working with the public in a retail situation.

CHANCES FOR PROMOTION

In a small retail market, this job is usually handled by any of various workers. If the worker learned a lot about the business and fishing, he could be promoted to manager.

TRUCK DRIVER
WHOLESALE AND RETAIL MARKETS

OCCUPATIONAL DESCRIPTION

The worker may help load the truck using the hyster and small shipping skips. He drives the truck from the fishery or the market to the buyers location and unloads the fish the customer wants. He may make out and/or give the buyer an invoice listing the amount and price of the fish and keep a carbon copy for himself or the company for which he works. He must keep a log book of the hours he drives, the hours he works unloading the truck and the hours that he has off in a twenty-four hour period beginning at midnight the day he works. If he is making long trips, he will use company money to pay for tolls, phone calls and food or lodging. He will carry a company credit card for purchasing deisel fuel or gas for the truck. He must also check the running condition of the truck and make minor repairs on the vehicle while on the road.

EQUIPMENT

Hyster, skips,shipping boxes, truck, log book, credit card and tools to make minor repairs.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements.
Training: Will get on the job training in truck driving, loading and unloading at the fishery or market.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The worker spends the biggest share of his time inside the truck. He is working under fairly noisy conditions caused by the truck motor and the passing vehicles. He must drive in all types of weather and is subject to hazards of the open highway, shifting loads, jack knifing trailers and traffic.

WORKER CHARACTERISTICS

Aptitudes: Must possess above average aptitude in motor coordination, manual dexterity, and eye-hand coordination to drive the truck. Should possess above average physical strength and endurance to load and unload the heavy cargos from the truck.
Temperament: Should possess an even temper to remain calm in all types of traffic conditions and under stress of having to meet a time schedule. Should like to drive for long periods of time in all types of weather. Must be able to perform the job well without direct supervision.

CHANCES FOR PROMOTION

If the fishery is large enough to have a dispatcher, the worker might be promoted to this position. In the smaller markets, the truck driver is usually one of the workers at the business.

WHOLESALE-RETAIL MARKET OWNER

OCCUPATIONAL DESCRIPTION

This worker must place orders by phone for fresh fish and frozen fish to be shipped to the market. He must call or visit the local accounts and tell them what fish are available at that time. He then takes their order and writes it out on an invoice listing the amount and price of the purchase as well as the species of fish ordered. The worker then loads the truck with stock fish from the cold room and makes the deliveries from the orders. He may also have to pick up fresh and frozen fish that he has bought for the market from the fisheries. If the market has an out of town route, the worker will load all fresh and frozen fish on the truck that he feels he can sell and begin the route. As he stops at each of his customer's places of business, he will tell them what type of fish he has in the truck. He will then write their order on the invoice and unload that specific amount from the truck. He may either leave the copy of the invoice with the buyer to be paid at the end of the week or month, or he may take cash at this time. It is also the responsibility of the owner to order processed seafood and other goods that will be sold in the market. When the shipment comes in he will either price these items and place them on the shelves or assign this task to the clerk.

EQUIPMENT

Truck, hand cart, invoices, telephone, and receipt book.

MINIMUM QUALIFICATIONS

Education: No specific educational requirements, although any courses in marine biology and business education would be helpful to this man in his position.
Training: He has usually worked at all of the jobs in the retail-wholesale market and has done well at learning the business.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The work is done both indoors and outside loading, driving and unloading the truck. The worker must have average physical strength and endurance to load and unload the truck and is subject to hazards of driving on the highway in all types of weather and traffic conditions.

WORKER CHARACTERISTICS

Aptitudes: The worker should be able to work well while under no direct supervision. He should be able to see jobs that have to be done and delegate them to another worker in the market or do them himself. He should have above average aptitudes in math and business operation.
Temperament: The worker should like dealing with the public in the capacity of both a retailer and a wholesaler. He must enjoy doing a variety of tasks each day.

CHANCES FOR PROMOTION

He has reached his limit in this area of employment.